

CECW-PC (1105-2-10a)

MEMORANDUM FOR CECW-MVD (ATTN: John Lucyshyn)

SUBJECT: Roseau, Minnesota, Feasibility Report and Environmental Assessment (August 2006) – Documentation of Review Findings

1. This memorandum forwards the documentation of policy compliance review findings for the subject project proposal. In the opinion of the policy compliance review team, all policy review concerns have been adequately addressed for this phase of project formulation and development.
2. Office of Water Project Review consideration of subject feasibility report and environmental assessment is complete. Questions concerning the HQUSACE policy compliance review of this project proposal may be discussed with review manager, Thomas Hughes, at 202-761-5220.

Encl



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DOCUMENTATION OF REVIEW FINDINGS

**Roseau, Minnesota
FLOOD DAMAGE REDUCTION**

**FEASIBILITY REPORT
AND
ENVIRONMENTAL ASSESSMENT**

NOVEMBER 2006

ENCLOSURE

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DOCUMENTATION OF REVIEW FINDINGS**ROSEAU, MINNESOTA****FEASIBILITY REPORT
AND
ENVIRONMENTAL ASSESSMENT
AUGUST 2006****A. GENERAL.**

1. Policy Compliance Review Findings. The following summarizes the final HQUSACE policy compliance review findings for the feasibility report and EA on the proposed flood damage reduction project for Roseau, Minnesota. This summary includes the concerns and the related resolutions of those concerns for the HQUSACE reviews of the February 2006 Alternative Formulation Briefing documentation; the June 2006 draft feasibility report and EA; and the September 2006 Final Feasibility Report and EA. In the opinion of the policy compliance review team, all policy review concerns have been adequately addressed for this phase of project development. The AFB review information was originally documented in the CECW-MVD Project Guidance Memorandum (PGM) dated 16 March 2006. The draft report review information was previously documented in a CECW-PC memorandum dated 10 August 2006. The final report review information was documented in the CECW-PC Final Project Assessment Memorandum dated 27 November 2006. The documentation that follows comprises the HQUSACE policy compliance review record.

2. Project Location. The project area focuses on the city of Roseau and the surrounding area. Roseau, Minnesota, is located 10 miles south of Canada and 65 miles east of North Dakota and has a population of 2,756 in the year 2000 census. The Roseau River bisects the city, and then flows north toward Canada, draining more than 1,100 square miles in the United States and an additional 900 square miles in Canada.

3. Authority. This report was authorized by a 30 September 1974 resolution, which reads as follows:

“RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, That the Board of Engineers for Rivers and Harbors be, and is hereby, requested to review reports on the Red River of the North Drainage Basin, Minnesota, South Dakota and North Dakota, submitted in House Document Numbered 185, 81st Congress, 1st Session, and prior reports, with a view to determining if the recommendations contained therein should be modified at this time, with particular reference to flood control, water supply, waste water management and allied purposes.”

4. Non-Federal Sponsors. The Non-federal sponsor is the City of Roseau, Minnesota.

5. Problems, Needs And Opportunities. The city of Roseau is vulnerable to flooding from both spring snowmelt and rainfall events. During the summer of 2002 a rainfall event caused flooding in more than 80 percent of the city causing damages estimated at more than \$120,000,000. The flood lasted several weeks and city services were significantly affected for months.

The city of Roseau relies heavily on temporary emergency levees, which are in poor condition, leaving the city vulnerable to levee failures and catastrophic flooding. These levees were overtopped during the 2002 flood and do not provide reliable flood protection. Additional flood protection is needed to reduce flood damages in the city from these frequent events. An opportunity also exists to provide the city with passive, family oriented recreational resources which are currently not present.

6. Plan Formulation. Initial coordination with the City of Roseau and the State of Minnesota focused on identification of a flood damage reduction project that would be feasible from a local, state, and federal perspective. From this coordination, the study team defined an array of possible primary and secondary features. These features were considered as measures that could potentially address some or all of the planning objectives, opportunities, and concerns.

The study team identified 11 possible plans, including the no action plan, as potential alternatives which could provide some benefit to the City of Roseau and meet the goals and objectives of the project. Of those 11 plans, 3 were initially eliminated because they were conceptually found to have extremely large costs and were not expected to have a significant amount of flood damage reduction benefits. The remaining plans were analyzed based on economic costs and their ability to provide outputs similar to the other plans considered. Those with fewer net benefits were eliminated at that time. The result was that two plans remained, the East Diversion Channel and the In-Town Levee alternative. Various sizes of these two plans were evaluated, resulting in the plan with the greatest net benefits being the selected plan. This plan, the East Diversion Channel, was then optimized by looking at smaller secondary measures which would be able to add net benefits to the overall project, resulting in the NED plan.

It was determined that the selected NED plan would cause a 0.1 foot increase in stage downstream of the project area for the 100-year flood event. This was not acceptable to the City of Roseau. As a result, two large storage areas were added to the plan, and the NED plan plus the storage areas became the recommended locally preferred plan (LPP). Recreational features were determined to be economically justified and were included as part of both the NED plan and the recommended LPP.

7. Selected Plan. The recommended plan is the locally preferred plan. This alternative includes the NED plan and two large storage areas to eliminate downstream stage increases. The plan meets the project objectives and constraints. The following is a description of the NED and recommended plans.

NED Plan Features

- Approximately 4.5 miles of diversion channel (ranging from a maximum depth of 16 feet to areas where no channel cut is needed, with a bottom width of 150 feet and 1V:5H side slopes).
- 763 acres of land acquisition.
- Approximately 5.1 miles of levees used to contain flows within the diversion channel. The majority would have a height of less than 5 feet.
- 0.51 mile of road raises ranging from 2 to 4 feet.
- An inlet control structure to regulate the events that would pass into the diversion channel, beginning with 2-year frequency events.
- A restriction structure to increase the efficiency of the diversion channel. This structure would be 16 feet wide and 100 feet long. It would begin to restrict flows at the 5-year event (20-percent exceedance frequency).
- Construction of three bridges (two associated with roads crossing the diversion and one railroad bridge crossing the diversion).
- Relocations of electrical, sewer, gas, and telephone infrastructure.
- Riprap at various locations to protect the levees and diversion structures from erosion.
- Approximately 200 acres of native plantings to provide ground cover in the project area.

LPP Features (Changes to NED Plan)

- Approximately 4.1 miles of additional levees used to contain peak flows within the storage areas. The majority would be less than 5 feet, the highest would be 15 feet.
- Approximately 5.1 miles of reduced levee heights; the reduction would vary from 2 to 5 feet (see NED plan features above).
- 1,089 acres of additional land acquisition for storage areas and associated levees.
- 0.69 mile of additional road raises ranging from 2 to 4 feet.
- 9.0-acre reduction in disposal stockpiles; the material would be used in levee construction.
- Four additional spillways along the levee system to allow for peak flow storage.

Recreation Plan Features

- Three multipurpose recreational trail loops combining for a total of approximately 7 miles of paved or compacted gravel trails.
- 4.3 miles of canoe trails in two segments, the north being 1.3 miles and the south 3 miles.
- One scenic overlook, two interpretative sites, and birding stations.
- A total of 9 miles of off-road vehicle trails of different levels of difficulty.
- Restrooms, potable water, picnic facilities, grills, and parking at the off-road vehicle trailhead where the project intersects with Highway 11.

- 5 acres of hardwood planting for trail head and park areas.
- Planting of 25 acres of wooded areas near trails.

8. Project Costs. The estimated first cost of the total recommended plan is \$24,417,000 at October 2005 price levels. LERRD are estimated at \$7,375,000. The total equivalent annual cost is estimated at \$1,501,546.

9. Operation, Maintenance, Repair, Rehabilitation, and Replacement (OMRR&R). The City of Roseau will operate and maintain the project in accordance with the procedures and schedules set forth in an Operation and Maintenance manual. The total estimated annual cost of operation, maintenance, repair, rehabilitation, and replacement for the recommended plan is \$67,826, which includes both flood control and recreation features. Maintenance would consist of annual inspections of and repairs to the project permanent levees, diversion channel, bridges, and recreation facilities. Operation would include the operation of gated culverts and the servicing of all project structures. No major rehabilitation or replacement of project features during the 50 year period of analysis is anticipated.

10. Project Benefits. Equivalent annual benefits for flood damage reduction are estimated at \$2,265,000 and for recreation are estimated at \$2,075,000, for a total of \$4,340,000. This results in equivalent annual net benefits of \$874,000 for flood damage reduction and \$1,965,000 for recreation for total equivalent annual net benefits of \$2,839,000. Table 1 shows the cost by purpose and the associated benefits.

11. Cost Sharing. The non-Federal sponsors are responsible for a minimum cash contribution of 5 percent, all lands, easements, rights-of-way, relocations, and disposal (LERRD) costs, plus additional cash, if necessary, to reach the minimum 35-percent threshold, based on the cost sharing principles of Section 103, Water Resources Development Act of 1986, as amended by Section 202, Water Resources Development Act of 1996. The Federal share of the first cost of the total recommended plan is estimated at \$13,384,600 (55 percent) and the non-Federal share is estimated at \$11,032,400 (45 percent). Overall non-Federal cost sharing is above 35 % of project cost because recreation cost is cost shared at 50% non-Federal costs and the local preferred option is a 100% non-Federal cost. Additional non-Federal cost is due to LERRDs exceeding the creditable amount. See Table 2 below for the cost shares for the total plan

12. Environmental Compliance. The Finding of No Significant Impacts (FONSI) was signed on 29 August 2006 following public review conducted between 27 June 2006 and 11 August 2006.

Table 1

Item	Flood Damage Reduction	Recreation	Total Costs
Investment Cost			
Total Project Costs	22,756,000	1,661,000	24,417,000
Interest During Construction ¹	1,173,720	85,670	1,259,390
Total	23,929,720	1,746,670	25,676,390
Average Annual Cost			
Interest and Amortization ²	1,336,189	97,531	1,433,720
OMRR&R	54,998	12,828	67,826
Subtotal	1,391,187	110,359	1,501,546
Average Annual Benefits			
Monetary (FDR) & (Recreation)	2,265,300	2,074,900	4,340,200
Net Annual Benefits	874,100	1,964,500	2,838,600
Benefit-Cost Ratio	1.63	18.79	2.89
FDR Benefit-Cost Ratio (at ⁴7%)	1.24	14.6	2.21

¹ Two year period of construction

² Based on October 2005 price levels, 5 1/8 percent rate of interest, and a 50-year period of analysis

³ Operation, Maintenance, Repair, Replacement, and Rehabilitation

⁴ Per Executive Order 12893

Table 2

Estimated Implementation Costs (October 2005 price level)

Federal

Corps of Engineers - flood damage reduction (65%)	\$12,554,000
Corps of Engineers - recreation (50%)	\$830,500
Corps of Engineers - total	\$13,384,500

Non-Federal

City of Roseau - flood damage reduction (35%) ^{1, 2}	\$7,341,000
City of Roseau - recreation (50%)	\$830,500
City of Roseau - locally preferred plan (100%)	\$2,861,000
City of Roseau - total	\$11,032,500

Total **\$24,417,000**

¹ \$6,448,000 of this amount is LERRD credit and the remainder is cash

² This is greater than 35% due to the cost of the LERRDs and the required 5% cash contribution

B. REVIEW COMMENTS ON THE MARCH 2005 ALTERNATIVE FORMULATION BRIEFING PACKAGE.

1. Discount Rate. The analysis should be updated with the current (FY06) discount rate of 5.125% prior to preparation of a Chief's Report

Discussion: The District asked for clarification on this comment. Headquarters stated that the draft and final feasibility reports should have project costs expressed in October 05 price levels, in accordance with the FY06 discount rate of 5.125%.

Required Action: The District will update the project costs to October 2005 price levels in accordance with the FY06 discount rate of 5.125%.

MVP Action: The costs were indexed from October 2004 to October 2005 price levels.

HOUSACE Assessment: Resolved.

2. Induced Damages. Page C-E-10 states "In order to eliminate any induced damages downstream of Roseau some high water storage areas will be created with levees. During peak flows weirs will control the flows into these areas and they will be drained through gated outlets once the waters have receded". It is appropriate for a flood damage reduction study to evaluate the impacts of the proposed alternatives both upstream and downstream. However it is not required to "eliminate any induced damages". Each plan should be evaluated based on net benefits that would include any induced damages as a negative benefit. "Mitigation is appropriate when economically justified or there are overriding reasons of safety, economic or social concerns, or a determination of a real estate taking (flowage easement, etc.) has been made" (ER 1105-2-100, pg. 3-3 Flood Damage Reduction (5) Induced Flooding, page 3-12). Mitigation of the induced damages should be evaluated separately and any proposed mitigation measures should then be included as part of the alternatives for comparison at the appropriate level of detail. Changes to the proposed mitigation could affect the delineation of the project lands which would also affect the NED plan as it deals with recreation.

District Response: The storage areas were incorporated into the project to avoid any induced damages downstream of the project. Increasing stages and affecting landowners downstream who do not want "the city's water" will result in social problems, primarily increased opposition to the proposed project. The local sponsors indicated that any induced damages or stage increases would be socially unacceptable and public opinion supports this position. This issue is one that is very significant and most likely will hinder the implementation of this project.

Initial indications were that a flowage easement downstream of town would not be necessary as the stage, duration, and frequency would not be significant enough to justify a real estate taking. The creation of storage areas solved the social and implementation problems and allows for a holistic planning approach including planting native species of

grasses, shrubs, and trees, which are being used to enhance the recreation features. In addition, these plantings will offset any adverse effects that the project would have on woodlands or wetlands.

Discussion: The District provided clarification on the scope and magnitude of induced damages. The area of concern is downstream of the proposed project and is agricultural land with privately owned levees and a couple of structures. Also downstream is a seed company which produces up to 50% of the nation's bluegrass seed. The area impacted by a 100-year flood event is the same with and without project (i.e., approximately 7.3 sq. mi.). The without project 100-yr flood depth in this area is approximately 12 inches and the with project depth is approximately 14 inches. The Sponsor and District representatives emphasized the social concerns associated with any perception of induced damages downstream of the project and expressed that without the 1100 acre storage areas (downstream of Roseau) to offset perceived project impacts, the political and financial support for the project will erode. The District was questioned regarding their ability to correctly identify such a small increase in flooding given the margin of error normally associated with surveys and modeling. Headquarters stated that the first step when the District perceives that induced flooding will be a factor is to: (1) quantify the depth, duration, and damages associated with the induced flooding by comparing the without and with project conditions, (2) determine if additional measures can be undertaken at a cost less than the amount of damages (i.e., a part of the NED plan), (3) if damages still remain, perform a takings analysis to determine if there is a taking, (4) if there is a taking, determine the least cost method to compensate affected landowners, (5) if there is no taking and there are overriding reasons of safety, economic or social concerns, evaluate mitigation alternatives to identify an economically efficient plan to mitigate, and (6) if there is no taking and if the District cannot justify mitigation based on overriding safety, economic or social concerns, but the sponsor still feels measures are appropriate to eliminate any perception of impacts, then these measures become a locally preferred item and the costs associated with these measures are 100 percent non-Federal costs. The District stated no other alternatives were evaluated and there is no project funding available to perform additional analyses. Headquarters noted the social concerns expressed, but stated they do not meet the Corps policy for providing cost-shared mitigation. The District agreed that the report would be revised to reapportion project costs and attribute all costs associated with the storage area as local responsibilities. The District will recalculate the NED plan and develop a Locally Preferred Plan. The induced flooding mitigation will be identified as 100% non-Federal.

Required Action: The draft feasibility report will be revised to reflect all project costs associated with the proposed storage area, including, lands and associated costs, recreation, and borrow areas as 100% local costs. The NED analysis will be reformulated and a Locally Preferred Plan (LPP) identified. Other appropriate analyses will be performed (e.g., real estate plan). The draft report will be revised accordingly and Real Estate Plan and other appropriate analyses will be performed to reflect these changes.

MVP Action: The NED analysis was completed during the initial formulation process, only after the downstream stage increases were identified were storage areas added to the

NED plan. This plan without storage areas remains the NED plan as it was before the storage areas were added. The costs associated with the LPP have been separated out from the costs of the NED plan. The difference (\$2,819,900) will be 100% local costs. Table 6 in the Feasibility Report shows a line item breakout of the project features and associated costs between the LP and NED plans. The Appendix D provides cost estimates for both the LP and NED plans and environmental impacts for both plans are presented in the Environmental Assessment (Appendix E). The identified LPP is the NED plan with storage areas added to the East and West sides of the project. A full plan description can be found on pages 30-35 in the Feasibility Report. Recreation features for the NED and LP plans will be the same and will only use lands associated with the NED project corridor. The Feasibility Report has been revised to reflect these changes. The district developed a deviation package for ASA(CW) approval to recommend the LPP, per the requirement in ER 1105-2-100. HQ is expected to forward the request to ASA(CW) during the week of June 5, 2006.

HOUSACE Assessment: Resolved.

3. NED Plan Components. Components of the NED plan are listed on pages 26-27 of the DFR. These 22 components should be organized by category -- flood damage reduction, mitigation, and recreation -- so that it is apparent to which project purpose individual items are related and that categories are incrementally justified.

District Response: This section will be reorganized by categories; however there is no mitigation for this project so features will be divided between flood damage reduction and recreation.

Discussion: The response generally satisfies the concern. The NED Plan currently described in the AFB read-ahead should be revised to reflect the removal of the storage area and associated features. The revised NED plan should be presented by category, i.e. flood damage reduction and recreation.

Required Action: The District will revise the NED plan and present the NED plan in a table organized by NED benefit categories in the draft feasibility report.

MVP Action: The list of project features has been broken into three categories: NED plan features, LPP features (changes to NED plan), and Recreation. These are a bulleted list and can be found on pages 36-37 of the Feasibility report. A table was not used in this case because a bulleted list could present the information more clearly. The NED features list the features associated with that plan, the LPP features indicate what will be changed from the NED plan either with reductions or additions, and the Recreation features lists proposed recreation for the project which will only use NED project lands. Table 6 on page 41 of the main report shows the cost differences between the NED and LPP by construction features

HOUSACE Assessment: Resolved.

4. Diversion Channel Sizing. Three diversion channel bottom-widths (50', 150' and 350') were evaluated. The 150' bottom width was identified as the NED plan; however, with nearly \$350,000 in residual annual damages there may be a slightly larger plan with higher net benefits (alternate NED). The rationale for the bottom- width delineations should be discussed, particularly with regard to transitioning from 150' to 350' (why wasn't a 250' width considered?).

District Response: A sensitivity analysis was conducted based on the relationships displayed in Table C-E-11 to determine if a 250' diversion channel could possibly be the plan with the highest net benefits. Assuming that the cost relationship between the 150' and 350' diversion channel is linear the total costs would be approximately \$25.5 million dollars with the average annual costs calculated at \$1.7 million dollars. Even claiming the all the benefits calculated for the 350' diversion channel the 250' alternative would fall short of the net benefits needed to overtake the 150' plan.

Discussion: The District's response seems reasonable; however headquarters advised that given the need to reanalyze the NED plan, the District should revisit the residual damages and attempt to reduce them.

Required Action: The District will reanalyze the NED plan and consider additional plans that may reduce the residual damages associated with the currently proposed NED plan (150' diversion channel).

MVP Action: The district revisited the sensitivity analysis, based on the NED plan costs and the results indicated the initial response remains unchanged. The 150' plan is the NED plan and has the greatest net benefits. The district also analyzed the use of non-structural measures to reduce the residual damages. These were determined to result in a net loss of nearly \$1,000 annually and therefore were not justified project features. In previous analysis, other alternatives were considered in an attempt to reduce residual damages, these include railroad bridge modifications, small in-town levees, and larger channel widths.

HOUSACE Assessment: Resolved.

5. Volunteer Labor. The economic analysis includes benefits claimed for the value of volunteer time spent in flood cleanup and recovery. Time savings benefits, in this case, are generally limited to personal or paid time engaged in flood preparations or cleanup. What is the basis for calculating volunteer labor hours and how is it a measure of willingness to pay as the standard for NED benefit analysis in accordance with the P&G?

District Response: The benefits for the value of volunteer time spent in flood cleanup and recovery came from approximately 400 post-flood damage surveys that were conducted in Grand Forks, N.D. and East Grand Forks, MN. in the aftermath of the 1997 floods. The surveys were part of the Corps Flood Damage Data Collection Program. The survey form included information on the direct costs for cleanup expenses, unpaid hours for cleanup and repair, emergency damage prevention actions, and other flood related costs. The

depth of flooding incurred by the structures surveyed varied from low level basement flooding to significant first floor flooding. The following question is from the survey:

“How many total unpaid hours did you and others spend on repair and cleanup of your home and its contents? _____HOURS”

A regression equation was developed from the residential survey data relating costs to depth of flooding.

Discussion: Headquarters advised that more information is needed in the draft report to describe the volunteer labor values and the justification for their use as an NED benefit. The District cited other flood damage reduction studies where these benefit categories had been allowed.

Required Action: The District will provide a more complete explanation of the derivation of volunteer labor values and state the arguments for using these benefit categories in accordance with ER 1105-2-100 and identify the projects where these benefit categories have been used in the past.

MVP Action: The use of volunteer labor was recommended in the *National Economics Procedures manual – Urban Flood Damage, IWR Report 88-R-2, March 1988*. The volunteer labor falls under temporary relocation costs, which includes the opportunity cost of time spent making household repairs, contracting for repairs, and purchasing new furnishings. In policy review comments received from headquarters for the East Grand Forks, Minnesota and Grand Forks, North Dakota, General Reevaluation Report and Environmental Impact Statement, it was indicated that the opportunity cost for labor be valued at 1/3 the average wage rate in the county rather than the minimum wage rate. No other issues were raised by Headquarters with the use of benefits from volunteer labor for cleanup.

The cost of volunteer labor in Grand Forks/East Grand Forks was derived through regression analysis from the information gathered and depth of flooding, resulting in a depth damage relationship. This depth damage relationship was then applied to each structure in Roseau resulting in the benefits from volunteer labor.

This benefit category has been used in numerous projects in St. Paul District including: Grand Forks/East Grand Forks, Breckenridge/Wahpeton, Fargo-Ridgewood, and Grafton.

HOUSACE Assessment: Resolved.

6. Model Certification. The economic analysis relies on the use of local models for calculating damage reduction benefits. EC-1105-2-407 requires certification of regional/locals models employed in planning studies. In the absence of specific protocols for model certification, comprehensive ITR is necessary from the appropriate Planning Center of Expertise. A status on model certification/ITR needs to be provided.

District Response: The Hydrologic Engineering Center – Flood Damage Analysis (HEC-FDA) model was used in the plan formulation process to derive the expected annual damages for future without project and with-project conditions for the various alternatives under consideration. We assume this corporate model is certified. The stage-damage curve with error data that was input into the HEC-FDA model was developed for the study area using the St. Paul District's Depth Damage Systems (DDS) spreadsheet using the @Risk - Risk Analysis and Modeling program by Palisade. This program has been used by the District since 1993 in the plan formulation/economic analysis process of flood damage reduction studies. If required the necessary steps will be pursued to have the planning model reviewed and certified by the appropriate Planning Center of Expertise (PCX).

Discussion: Headquarters noted that per EC 1105-2-407 all models used in planning analyses must go through a comprehensive ITR from the appropriate Planning Center of Expertise until the certification of models is fully implemented. The St. Paul District's Depth Damage Systems (DDS) spreadsheet using the @ Risk – Risk Analysis and Modeling program by Palisade should be provided to the National Planning Center of Expertise for Flood Damage Reduction, South Pacific Division for validation.

Required Action: The St. Paul District's Depth Damage Systems (DDS) spreadsheet using the @ Risk – Risk Analysis and Modeling program by Palisade should be provided to the National Planning Center of Expertise for Flood Damage Reduction, South Pacific Division for validation prior to the completion of the draft feasibility report.

MVP Action: The St. Paul District contacted Clark Frentzen, National Planning Center of Expertise for Flood Damage Reduction (PCX-FDR), and asked about model certification for Roseau. Mr. Frentzen indicated that if St. Paul was using the most recent version of HEC-FDA, then no further review would be necessary. It was also indicated that the PCX-FDR would not need to certify St. Paul District's @Risk model. The District is currently using the most recent HEC-FDA model and is in the process of acquiring the most recent version of @Risk for future use. The @ Risk model used for the analysis will undergo an ITR review prior to release of the final report.

HOUSACE Assessment: Resolved.

7. Forecasts - Future Without Project Conditions. Forecasts of resource conditions also need to be done for all relevant resources in the planning area. The AFB documentation did not include a discussion of future without project. The future without project condition was discussed in the FSM read-ahead packet and discussed during the FSM. This information should be included in the DFR.

District Response: The future without project condition is that:

Flooding and damage to large portions of the city of Roseau and surrounding areas will continue to occur. As the area continues to grow and develop emergency service costs will increase along with the potential damage from spring and rainfall caused flood

events. The city will continue to rely on heroic responses and poorly maintained temporary emergency levees as the primary line of defense against future flood events.

At some point, catastrophic flood damages will occur in the City of Roseau (similar to the 2002 Roseau River flood). When that future event occurs, there is a potential for loss of life and a high probability of many structures being significantly damaged. This event will result in high public costs as part of the emergency response and buyouts. Another catastrophic flood in the city of Roseau would be a local nightmare devastating the community, fiscally and socially.

The future without project condition has been assumed based on the following:

1. The City of Roseau will continue to belong to the National Flood Insurance Program and will follow all rules and regulations associated with being in that program.
2. Future flood damages will remain unchanged.
3. The existing emergency levee system was analyzed and credit was given in certain reaches to varying elevations, these levees will remain in that condition for the future. See geotechnical appendix G for more information.
4. The City of Roseau and the Roseau River Watershed District are pursuing significant internal drainage projects which will be completed prior to the completion of the recommended plan.
 - a. West Intercept Project, this project will divert overland flows coming from the west of the city to the north to the old Roseau Lake bottom.
 - b. West side storm water system, this system will divert storm water into a large storm water basin, with a pump station being used for continuous operation. This project is under construction.
 - c. East side storm water protection will connect the three main storm sewer outlets together and will eventually direct flows into a storage area north of town. Currently the storm outlets are pumped with portable pumps.

Discussion: The District response provides a summary of the without project condition description from the FSM read ahead material. Headquarters noted that this write-up and the responses to the HQ FSM comments should be incorporated into the without project condition in the draft feasibility report. Specifically the planned buy-outs and any future growth in Roseau must be identified and described. The District stated that any planned projects in the vicinity would not significantly impact this project. This needs to be added to the without project condition.

Required Action: The District will revise the draft feasibility report so the baseline condition and future without project sections are consistent with other sections of the report and the Environmental Assessment and fully tell the without project condition story. Planned buy-outs and future growth need to be incorporated into the without project condition.

MVP Action: The future without project condition has been modified to include the assumption that the reduction in damages from buyouts would be equally offset by new growth outside of the 100-year floodplain. It has also been indicated that other planned or proposed regional projects are not expected to have a significant impact on the flooding problem in the area. These changes are on page 14 of the Feasibility report.

HQUSACE Assessment: A Future Without-Project Conditions section has been added to the report. However, the section does not fully tell the Without-Project Condition story.

a) The first paragraph (pg. 14) indicates that "As the area continues to grow and develop, emergency service costs will increase along with the potential damage from spring and rainfall caused floods." The inconsistency between this statement and the bullet "Future flood damages will remain unchanged" located further down the page needs to be rectified.

b) The statement that "Future flood damages will remain unchanged" is based upon the assumption that the damages eliminated through structure buyouts would be offset by damages to new development. The buyouts are occurring within the 100-year floodplain, but the new development will occur outside the 100-year floodplain. Therefore, it appears that there should be some reduction in future flood damages with buyouts that are occurring. The report should explain why this is or is not the case.

c) The report indicates that three "significant" internal drainage projects are occurring in the project area, and then indicates that "other planned or proposed regional projects would not significantly alter the current flooding problem in the area." The report should explain why these other significant projects will not provide any relief to the current flooding situation.

d) This section still needs to have a discussion of the Future Without-Project Conditions of relevant resources in the project area. The present discussion focuses on the continuation of flood damage to structures, but no environmental or social conditions.

e) "Specific Objectives, Opportunities, and Concerns" should not be a subheading of "Future Without Project Conditions," and there is no need for the subheading "Definition" either. The whole discussion on page 14 should simply be titled "Future Without Project Conditions."

MVP Response/Action: a) The sentence on pg. 14 has been revised to make it consistent with the bullet point. It now reads, "As the area continues to grow and develop, emergency service costs will increase from spring and rainfall caused floods."

b) No buyouts are currently underway and all buyouts from the 2002 flood have been completed and have been taken into account during the feasibility study. The paragraph has been revised to make it clear that no buyouts are going on and they may only occur during future large events. The paragraph now reads, "Future flood damages will remain

unchanged. The assumption is that the damages eliminated through structure buyouts would be offset by damages to new development. A number of structures were removed following the 2002 flood and it is expected that no structures would be removed in future buyouts except following extreme events. The damages avoided by future buyouts for study purposes will be assumed to be offset by new development which will follow floodplain development guidelines and be damaged rarely, however the quantity of houses will be much greater.”

c) Assumptions #4 and #5 are not related assumptions. There are 3 projects that would be expected to impact the project area. Those are listed in assumption #4. Assumption #5 has been revised to read, “No other currently proposed or anticipated regional projects would significantly alter the current flooding problem in the area.”

d) The without project condition has been revised as follows:

“If no flood damage reduction measures are implemented, flooding and damage to large portions of the city of Roseau and surrounding areas will continue to occur and the city will remain in the 100-year floodplain. Growth in Roseau is expected to continue with population estimates nearly doubling over the next 50 years. As the area continues to grow and develop, emergency service costs will increase from spring and rainfall caused floods. The city will continue to rely on heroic responses and poorly maintained temporary emergency levees as the primary line of defense against future flood events.

At some point, catastrophic flood damages will occur in Roseau (similar to the 2002 Roseau River flood). When that future event occurs, the potential for loss of life exists and the probability is high that many structures will be significantly damaged. This event will result in high public costs as part of the emergency response and buyouts. Another catastrophic flood in Roseau would be a local nightmare that would devastate the community, fiscally and socially.

Continued flooding would have substantial negative effects on public health and safety in the community. There will be continued potential for loss of life and property damage attributable to the effects of flooding. In addition, the exposure of emergency and clean-up personnel to sewage and other contaminants introduced into the environment during a flood place them at risk. Continued flooding will result in decreased levels of community cohesion and hinder further community growth and development due to the continued threat of flooding in the City of Roseau.

Land use and habitat, quantity and quality, in and surrounding Roseau will remain the same as the current condition. That is, agriculture is expected to continue as the predominant adjacent land use. Future development is expected to occur within agricultural areas - in and surrounding the city. In addition, agricultural fields will continue to contain occasional pockets of woodlands and wetlands providing minimal habitat value. Riparian habitat along the river would continue to be narrow bands along the length of the river being disturbed by in-town levees. In the City of Roseau, the Roseau River will continue to be isolated from the floodplain by temporary levees from

the south edge of town to the city's northern boundary. The river would continue to provide habitat for game and non-game fish species, but diversity, abundance, and geographic occurrence would continue to be dependent on existing barriers, water quality issues and winterkill caused by low flows. “

e) The document has been revised as indicated.

HOUSACE Final Assessment: Resolved.

8. Large Flood Events. The DFR and EA state that only very large flood events would cause discharges into the storage areas (which total 1163 acres according to acreages in the EA page 15), otherwise they will be dry. What is a very large event?

District Response: Flows from the diversion channel will begin to enter the 1100 acre storage areas at the 20-year event. Accordingly, this is not a “very large” flood event and the documentation will reflect initial flows beginning with the 20-year event. It is important to note that the gated culverts will remain open during the smaller events allowing flood prone wetlands to continue flooding.

Discussion: None. The response satisfies the concern. The issue is resolved.

Required Action: The District will revise draft feasibility report to clarify initial flows into the discharge area begin with 20-year event.

MVP Action: The feasibility report, page 32 and 47, and the EA, page 4, have been revised to indicate that the storage areas will begin to take on water beginning with the 20-year event.

HOUSACE Assessment: Resolved.

9. Contingency Rates. The contingency rates applied to construction features exceeded guidelines described in ER 1110-2-1302. Based on the information stated in the report, this project is considered a standard civil works type construction and, therefore, do not require high contingencies. The project cost could be overstated because of the application of high contingency rates. Provide historical data or experience from similar type project that support application of high contingency rates.

District Response: While ER 1110-2-1302 suggests 20% contingency as a guide for Feasibility Reports > \$10 million, it has been our experience that with the level of design details not being completed for items such as the bridges, control structures or utility relocations, that a higher contingency be used. Assumptions pertaining to the sizes and types of structures required could significantly alter the costs. A review of the contingencies will be completed based on the concerns stated above.

Required Action: The District will review the contingencies, provide the rationale for using a different contingency than that suggested by ER 1110-2-1302 in the draft feasibility report, and provide Headquarters with a copy of the MCACES estimate.

MVP Action: The report has been reviewed, and discussion with design engineers resulted in reducing some of the contingencies. Items with increased levels of uncertainty have larger contingencies. The total contingencies are still higher than the 20 percent contingency recommended in ER 1110-2-1302, however the design team is not comfortable with the lower rates based on past experience. The contingencies used for the FDR portions of the project vary between 25 and 26 percent. Some of the uncertainties come from limited design in the bridges and limited borings in the project area. For the recreational features a 30 percent contingency is used because minimal design work has been complete.

HQUSACE Assessment: Resolved.

10. Unit Costs. Numerous cost items normally used in building and site work construction items (e.g. earthwork, fill, aggregates, concrete, riprap, etc.) are indicated with “unknown unit prices”. Those items are very common and unit costs can be easily obtained from bid data, UPB, cost data from State/Sponsor, commercial data, and expertise from other districts. The unit prices used for those items appear to be on the high side due to inclusion of contingencies. The project costs could be overstated due to application of contingencies on those common type items. Confirm the reasonableness of unit prices.

District Response: Many of the unit prices were compared to the Breckenridge, MN Flood Control Project, which is a similar diversion type project with excavation of a channel and bridges. Also used were unit prices from the East Grand Forks, MN Flood Control Project. The estimate should not have indicated in the notes that unit prices were unknown for many of these items and this will be corrected.

Discussion: None. Issue resolved by district response.

Required Action: The District will correct the draft feasibility report as indicated in the district response. The report will be revised to reflect that unit prices were obtained from other diversion type projects.

MVP Action: The estimate was corrected to indicate that the unit prices were known and a general statement was added indicating that the estimate for this report was developed after...review of costs for similar construction projects on page D-1. In addition on page D-2 under relocations it was indicated that costs from the Breckenridge project were used as a basis for this project.

HQUSACE Assessment: Resolved.

11. Topsoil Cost. The notes on the estimate states “Topsoil was assumed to come from stripping operations.” However, cost for this item is included in the estimate. Clarify the statement and make the necessary adjustment to the estimate as needed.

District Response: The topsoil material will be obtained from stripping operations and the costs associated are for placing the topsoil. The stripping costs do not include disposal costs as it is being used for the topsoil material.

Discussion: None. Issue resolved by district response.

Required Action: The response will be incorporated into the draft feasibility report as stated.

MVP Action: The response has been incorporated into the report on page D-3.

HOUSACE Assessment: Resolved.

12. Lump Sum Items. Numerous critical construction items (e.g. utility relocations, bridges, etc.) had costs shown as “Lump Sum” in the estimate. There is no information provided in the estimate about the basis and assumption that was used in estimating the costs for those items. Provide information about the basis for development of costs for those items. Also, provide an electronic copy of the MCACES estimate.

District Response: The affected utilities have been identified based on maps provided by the Sponsor. It was assumed that major utility lines would need to be relocated along the county road when it crosses the proposed diversion channel. A preliminary opinion of compensability supports this assumption. The highway bridges, bypasses, traffic control and road raises were assumed to be similar to the bid items in the Breckenridge, MN project. Bid prices from Breckenridge were used and adjusted for inflation and size to develop those costs. The railroad bridge cost was derived from the Grafton Feasibility Report and was based on an estimate prepared by the BNSF railroad on what they would charge to build a bridge, again this was adjusted for size and inflation. A copy of the electronic MII file is attached.

Discussion: None. Issue resolved by district response. The copy of the electronic MII file is not attached to this memo as stated in the district response.

Required Action: The District will incorporate response into draft feasibility report and provide headquarters with an electronic copy of the MCACES estimate.

MVP Action: Language was included in the Cost Appendix to indicate that the assumptions were based on a preliminary opinion of compensability and costs derived from the Breckenridge, MN project. An electronic copy of the MCACES estimate will be attached.

HOUSACE Assessment: Resolved.

13. Stockpiles. The assumption of stockpiles to a depth of only 4.5 feet should be documented, given the corresponding requirement of 120 acres of disposal lands. Would greater depths reduce required acreages and costs?

District Response: The spoil areas were set at a height of 4.5' to match the average height of the levees on the north side of HWY 11. Therefore, all of the piles/levees throughout the project were approximately the same height. The piles were designed to be near the excavation site, to minimize hauling of material and allowing the area to be used in the future for recreational or agricultural uses, if desired, as this avoids large piles and slopes. The height will be analyzed more closely in plans and specs.

Discussion: None. Issue resolved by district response.

Required Action: The information provided in response will be included in the draft feasibility report.

MVP Action: The reasoning for 4.5 feet is included in the main report on page 34 in the list of project features.

HQUSACE Assessment: Resolved.

14. Cost Apportionments. Page 31, Recommended Plan Cost Allocations, indicates, under Lands and Damages, \$0 for Federal and \$4,155,000 for Non-Federal. The \$4,155,000 includes \$92,000 of Federal real estate administrative costs. See the Real Estate Plan (REP), Appendix F, page F-4, paragraph 10, Cost Estimate and page D-4, Project Cost Summary Sheet, 01 Account, Lands and Damages. Note: costs are *allocated* between project purposes and are *apportioned* between the Federal and Non-Federal sponsors

District Response: The costs will be redistributed to indicate the \$92,000 plus contingency for the federal real estate administrative costs.

Discussion: The District response resolves the concern. The costs stated in the comment and response will likely change as a result of the reallocation of the storage area costs to 100% non-Federal requirements.

Required Action: Pending completion of the updated apportioned cost distribution between Federal government and non-Federal sponsor, the District will redistribute the lands and damages costs to indicate the appropriate amount plus contingency for the federal real estate administration costs.

MVP Action: The costs apportionment has been changed to reflect the federal administrative costs plus contingency as a federal cost totaling \$100,625 for the NED plan. The additional administrative cost for the LPP plan will be 100% non-federal cost.

HQUSACE Assessment: Resolved.

15. Borrow Sites. Page D-2, Cost Relationships, discusses assumption of availability of borrow from excavation work. The Real Estate Plan (REP), paragraph 21, indicates that no borrow sites have been identified. If borrow is later identified as needed, the requirements of ER 405-1-12, paragraph 12-9.d (3) must be complied with.

District Response: Real Estate Division has confirmed with Engineering Division that the need for additional borrow sites does not exist. If a need should arise later, the requirements of ER 405-1-12, paragraph 12-9.d (3) will be complied with.

Discussion: The District response resolves the concern. The District should complete an attorney's opinion of compensability for all facility/utility relocations (not to be included in feasibility report).

Required Action: The District will comply with ER 405-1-12, paragraph 12-9. d (3) if the need for additional borrow sites develops. No changes are needed for the draft feasibility report.

HQUSACE Assessment: Resolved.

16. Required Acres. The REP should clearly state the number of acres required for the project, the number of acres to be acquired for each estate, the number of acres previously acquired by the non-Federal sponsor (NFS), - a breakdown of these previously acquired acres by estate, and the number of acres, by estate, that the NFS will received credit for. A clear way to present this information is in tabular form. An example will be provided during the AFB

District Response: Fee acres required for the Project total 1,863.0. Temporary Work Area Easement acres total 3.7. The NFS currently holds 97.1 acres in Fee ownership; therefore, Fee acquisition will be limited to 1,768.2 acres and Temporary Work Area Easement lands will be limited to 1.4 acres. The NFS will receive LER credit for the total 97.1 acres currently held.

Discussion: An example of the requested tabular format for presenting acreages was provided to the District. The District will utilize this format and revise the information presented in the REP accordingly.

Required Action: The District will utilize the tabular format provided and revise the information presented in the REP accordingly.

MVP Action: The REP has been modified to include a table reflecting the fee acres required and temporary work area required.

HQUSACE Assessment: Resolved.

17. Non-Federal Administrative Cost. Reference is Paragraph 10 of the REP, Cost Estimate. The non-Federal administrative cost appears somewhat low for the acquisition of 30 tracts, relative to similar MVD projects. This should be reviewed to confirm accounting of all costs.

District Response: Although the NFS administrative costs may appear low, the 25% contingency associated with the estimate will provide for any actual funding shortfall, if one happens to arise.

Discussion: The response resolves the concern. However, the contingency factor may be insufficient given the changes in the real estate allocation between non-Federal and Federal costs resulting from the required actions described in paragraph B. 1.

Required Action: The district will reassess the NFS administrative costs and incorporate any changes into draft feasibility report.

MVP Action: The district visited Roseau and reanalyzed the expected costs for the non-federal sponsor to acquire the lands necessary for the project. The current estimate of \$82,200 plus contingencies for the NED plan is reasonable. Additional costs for the LPP will be borne 100% by the local sponsor.

HOUSACE Assessment: Resolved.

18. Fee Acquisition. Paragraph 5 of the REP should include a more detailed discussion of the need for fee acquisition along the entire length of the channelization work. Also, the paragraph should contain a discussion of possible severance, including cost in gross appraisal, as a result of the fee acquisition.

District Response: The need for Fee acquisition is based on the function of the storage areas and the recreation elements attributed to those acres acquired outside of the diversion channel. Given the estimated Market Value of lands in the area, the difference between Fee acquisition and Permanent Easement acquisition is so minimal that Fee acquisition has been deemed more appropriate for long-term operation and maintenance purposes. The difference in value will be determined and allocated between project purposes accordingly.

Discussion: The District response partially resolves the concern. It was noted that though there may be no significant severance issue with the proposed plan, there may be with the revised locally preferred plan. The District should further consider the possible severance issue.

Required Action: The District will revise the draft feasibility report and include a discussion of the possibility of severance, including cost in gross appraisal as a result of fee acquisition.

MVP Action: Severance issues have been addressed in the REP and costs have been included in the NED estimate. There are no severance damages included in the LPP due to the more complete acquisition of larger parcels to support the storage areas.

HOUSACE Assessment: Resolved.

19. Maps. The REP should contain a map clearly identifying the required and existing right-of-way, estates to be acquired, and other pertinent real estate information.

District Response: Plates F-1 thru F-3 provides the information requested.

Discussion: Headquarters noted that Plates F-1 thru F-3 are illegible. Better maps are needed in the draft feasibility report.

Required Action: The District will provide better maps to clearly display the real estate requirements in the draft feasibility report.

MVP Action: The maps will be updated and printed in color.

HOUSACE Assessment: Resolved.

20. Gross Appraisal. The MVP chief appraiser should review the gross appraisal to insure the report conforms to Corps requirements.

District Response: The St. Paul District Chief Appraiser has previously reviewed and approved the Gross Appraisal.

Discussion: Headquarters was satisfied with response, however given the changes in the REP the Chief Appraiser will need to review revised plan prior to draft feasibility report being submitted to Headquarters.

Required Action: The District Chief Appraiser will review the gross appraisal pending completion of the changes described above.

MVP Action: The District Chief Appraiser has reviewed the gross appraisal.

HOUSACE Assessment: Resolved.

21. Fee. Although fee is generally required for recreation lands, it is not generally required for permanent flood control features. The acreage required for each project purpose should be identified and if recreation features are proposed for most of the project lands, the difference in value between acquisition of an easement and fee should be reflected as a recreation cost.

District Response: The difference in value is expected to be minimal if any; the estimates used for this calculation will be \$1,500 per acre in fee and \$1,350 per acre with

easements. Thus a cost of \$165,000 would be added to the recreation cost and removed from the flood damage reduction cost for the 1100 acre storage areas.

Discussion: None.

Required Action: The District will identify the real estate interest and then identify the flood damage reduction and recreation interests.

MVP Action: The lands associated with recreation have been relocated to the NED project corridor, these lands will be necessary for the flood damage reduction project. There will be no incremental cost associated with recreation.

HOUSACE Assessment: The existence of recreation necessitates the acquisition of land in fee. The incremental cost associated with the fee acquisition versus easement, however small, should be attributed to the recreation purpose.

Required Action: Prior to signing the PCA the District will allocate the incremental cost associated with fee acquisition to recreation. Based on the prior estimate of \$1,500 per acre for fee, \$150 would be allocated to recreation and \$1,350 to flood damage reduction.

HOUSACE Final Assessment: Resolved.

22. Bridge Construction. The DFR indicates that three bridges will be constructed over 2 existing roadways and one railroad. Attorney's opinions of compensability may be needed if modifications are required to the existing roadways and railroad.

District Response: A preliminary attorney's opinions of compensability have been completed and a final version will be completed prior to signing of the PCA agreement.

Discussion: The District attorney's opinions of compensability will not be included in draft or final feasibility report, but should be available upon request. With regard to the railroad relocation, please verify whether track is being relocated or a railroad bridge because the cost-sharing is different with a flood control project. An alteration of a railroad bridge and approach thereto is cost-shared pursuant to 33 USC 701p, whereas railroad track not part of the railroad bridge relocation would be a 100% non-Federal sponsor cost, creditable as LERR. Any land necessary for the railroad bridge alteration is considered LERR.

Required Action: The District's attorney's opinions of compensability should not be included in the draft or final feasibility report, but should be available upon request. The district will verify whether track or railroad bridge is being relocated and ensure appropriate cost sharing is applied.

MVP Action: The opinions of compensability will be available upon request. The railroad bridge will be cost shared pursuant to ER 1105-2-100, because the railroad bridge will be needed due to a channel cut in a fast land.

HOUSACE Assessment: The cost-share for the railroad bridge is not clear. The response simply says that the railroad bridge will be cost-shared in accordance with ER 1105-2-100. The cost-share for the railroad bridge and any land that might be required should be explained.

MVP Response/Action: The cost to relocate the railroad bridge is a construction cost and will be cost shared as a flood control feature. Clarification has been added to the report to indicate that the railroad bridge will be constructed along the existing alignment and there will be no additional track beyond that needed for the bridge and the approach thereto. All lands necessary for the project are the responsibility of the local sponsor. Table 7 on page 44 indicates that there are federal costs under relocations associated with the railroad bridge. These federal costs under lands are the federal administrative costs. Detailed cost sharing spreadsheets will be provided upon request.

HOUSACE Final Assessment: Resolved

23. Dwellings. The non-structural measures or flood-proofing or relocations of dwellings, need to be identified in feasibility, not plans and specifications.

District Response: The intent was to defer until plans and specifications the feasibility of providing additional secondary flood protection via non-structural measures to a few low lying homes along the Roseau River that might incur residual damage with the tentatively selected plan in place. Current indications are that a small number of structures will be impacted by flooding at their lowest adjacent grade; the result of this is residual damages.

Discussion: The feasibility of providing non-structural flood damage reduction must be addressed in the feasibility study document. The feasibility study is the decision document for project authorization. If non-structural components are part of the recommended plan they need to be described and included as part of the recommended plan and included in the total project cost estimate.

Required Action: The District will include non-structural components in feasibility report so that these components are included in the authorized project.

MVP Action: The district analyzed the use of non-structural measures initially included in the Draft Feasibility report. These were determined to result in a net loss of nearly \$1,000 annually and therefore were not justified project features.

HOUSACE Assessment: Resolved.

24. Items of Local Cooperation. The Items of Local Cooperation for a Structural Flood Control and Recreation Project should be included in the Report.

District Response: Concur. The items of local cooperation found on pages 33-36 of the draft report will be revised as necessary and incorporated into the recommendation paragraph of the revised report.

Discussion: None. Issue resolved by District response.

Required Action: The correct items of local cooperation for structural and non-structural flood control and recreation will be included in the draft feasibility report.

MVP Action: The items of local cooperation have been revised and included in the recommendations portion of the report.

HQUSACE Assessment: *The following items of local cooperation should be included in the report.*

- a. **Provide a minimum of 35 percent, but not to exceed 50 percent of total flood control costs as further specified below:**
 1. **Enter into an agreement which provides, prior to execution of the project cooperation agreement, 25 percent of design costs allocated by the Government to flood control;**
 2. **Provide, during the first year of construction, any additional funds needed to cover the non-Federal share of design costs allocated by the Government to flood control;**
 3. **Provide, during construction, a cash contribution equal to 5 percent of total flood control costs;**
 4. **Provide all lands, easements, and rights-of-way, including those required for relocations, the borrowing of material, and the disposal of dredged or excavated material, perform or ensure the performance of all relocations, and construct improvements required on lands, easements, and rights-of-way to enable the disposal of dredged or excavated material that the Government determines to be required or to be necessary for the construction, operation, and maintenance of the flood control features;**
 5. **Provide, during construction, any additional costs necessary to make its total contribution for flood control equal to at least 35 percent of total flood control costs;**
- b. **Provide 50 percent of total recreation costs as further specified below:**

1. Enter into an agreement which provides, prior to execution of the project cooperation agreement, 25 percent of design costs allocated by the Government to recreation;
 2. Provide, during the first year of construction, any additional funds needed to cover the non-Federal share of design costs allocated by the Government to recreation;
 3. Provide all lands, easements, and rights-of-way, including those required for relocations, the borrowing of material, and the disposal of dredged or excavated material, perform or ensure the performance of all relocations, and construct improvements required on lands, easements, and rights-of-way to enable the disposal of dredged or excavated material that the Government determines to be required or to be necessary for the construction, operation, and maintenance of the recreation features;
 4. Provide, during construction, any additional costs necessary to make its total contribution for recreation equal to 50 percent of total recreation costs;
 - c. Provide 100 percent of the total recreation costs that exceed an amount equal to 10 percent of the Federal share of total flood control costs;
 - d. Provide the non-Federal share of that portion of the costs of archeological data recovery activities associated with historic preservation, that are in excess of 1 percent of the total amount authorized to be appropriated for the project, in accordance with the cost sharing provisions of the agreement;
 - e. Do not use Federal program funds to meet any of the non-Federal obligations for the project unless the Federal agency providing the Federal portion of such funds verifies in writing that expenditure of such funds for such purpose is expressly authorized by Federal law;
 - d. Not less than once each year, inform affected interests of the extent of protection afforded by the project;
 - e. Agree to participate in and comply with applicable Federal flood plain management and flood insurance programs;
 - f. Comply with Section 402 of the Water Resources Development Act of 1986, as amended (33 U.S.C. 701b-12), which requires a non-Federal interest to prepare a flood plain management plan within one year after the date of signing a Project

Cooperation Agreement, and implement the plan not later than one year after completion of construction of the project;

- g. Publicize flood plain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in preventing unwise future development in the flood plain and in adopting such regulations as may be necessary to prevent unwise future development and to ensure compatibility with protection levels provided by the project;**
- h. Prevent obstructions of or encroachments on the project (including prescribing and enforcing regulations to prevent such obstruction or encroachments) which might reduce the level of protection it affords, hinder operation and maintenance, or interfere with its proper function, such as any new developments on project lands or the addition of facilities which would degrade the benefits of the project;**
- i. Provide and maintain necessary access roads, parking areas, and other public use facilities open and available to all on equal terms;**
- j. Operate, maintain, repair, rehabilitate, and replace the project, or functional portion of the project, including any mitigation, at no cost to the Federal Government, in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government;**
- k. Give the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the Non-Federal Sponsor, now or hereafter, owns or controls for access to the project for the purpose of inspecting, operating, maintaining, repairing, rehabilitating, replacing, or completing the project. No completion, operation, maintenance, repair, rehabilitation, or replacement by the Federal Government shall relieve the Non-Federal Sponsor of responsibility to meet the Non-Federal Sponsor's obligations, or to preclude the Federal Government from pursuing any other remedy at law or equity to ensure faithful performance;**
- l. Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, rehabilitation, and replacement of the project and any betterments, except for damages due to the fault or negligence of the United States or its contractors;**
- m. Keep and maintain books, records, documents, or other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, or other evidence is required, to the extent and in such detail as will properly reflect total project costs, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 Code of Federal Regulations (CFR) Section 33.20;**
- n. Comply with all applicable Federal and State laws and regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Department of Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled "Nondiscrimination on the Basis of**

- Handicap in Programs and Activities Assisted or Conducted by the Department of the Army”; and all applicable Federal labor standards requirements including, but not limited to, 40 U.S.C. 3141- 3148 and 40 U.S.C. 3701 – 3708 (revising, codifying and enacting without substantial change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c *et seq.*);
- o. Perform, or ensure performance of, any investigations for hazardous substances that are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Public Law 96-510, as amended (42 U.S.C. 9601-9675), that may exist in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for construction, operation, and maintenance of the project. However, for lands that the Federal Government determines to be subject to the navigation servitude, only the Federal Government shall perform such investigations unless the Federal Government provides the Non-Federal Sponsor with prior specific written direction, in which case the Non-Federal Sponsor shall perform such investigations in accordance with such written direction;**
 - p. Assume, as between the Federal Government and the Non-Federal Sponsor, complete financial responsibility for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for construction, operation, and maintenance of the project;**
 - q. Agree that, as between the Federal Government and the Non-Federal Sponsor, the Non-Federal Sponsor shall be considered the operator of the project for the purpose of CERCLA liability, and to the maximum extent practicable, operate, maintain, repair, rehabilitate, and replace the project in a manner that will not cause liability to arise under CERCLA;**
 - r. Comply with Section 221 of Public Law 91-611, Flood Control Act of 1970, as amended (42 U.S.C. 1962d-5b), and Section 103 of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2213), which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until each non-Federal interest has entered into a written agreement to furnish its required cooperation for the project or separable element; and**
 - s. Comply with all applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended (42 U.S.C. 4601-4655), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way, required for construction, operation, and maintenance of the project, including those necessary for relocations, the borrowing of materials, or the disposal of dredged or excavated material, and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.**

MVP Response/Action: All of the items listed above have been included plus one line indicating that the local sponsor is required to pay all incremental costs associated with the LPP.

HQUSACE Final Assessment: Resolved

25. Inventory - Existing Conditions. Step 2 of the planning process involves inventorying and forecasting conditions. According to ER 1105-2-100, Chapter 2 and Appendix E, it is necessary to quantify and qualify the planning area resources which become the basis for analyses of future conditions and project impacts and benefits. Ecological resources must be evaluated using a habitat-based methodology (ER 1105-2-100, section C-3(d)(5)). This evaluation is critical to determine mitigation requirements. The DFR provides only general information concerning ecological resources. Quantities, but not quality, of terrestrial and aquatic resources are included in the EA and should also be mentioned in the DFR. Additionally, at least preliminary results from habitat evaluations should be presented at the AFB. The district needs to provide further information on aquatic resources (particularly riverine, floodplains, wetlands and other special aquatic sites), terrestrial resources (particularly forested lands), and fish and wildlife resources that are found within the project area.

District Response: The potential need to conduct a HEP analysis for the proposed project was discussed with the USFWS during the scoping process. Due to limited scope and extent of the proposed features at that time, it was felt that conducting a detailed HEP analysis would not be warranted and was not included in the SOW for Coordination Act funding – USFWS concurred with this approach. Conditions did not appreciably change over the course of the study to alter this decision. Additional information will be added to the EA to clarify this approach.

Natural resources in the area are limited by the extensive conversion of land to urban and agricultural uses. Remaining resources are quantified by resource type.

The DFR will be revised to include more information on natural resources.

Discussion: The response generally satisfies the concern and Headquarters concurred that a HEP analysis is not needed. However, it was noted that in general the Environmental Assessment (EA) has more information than the draft feasibility report and the information in the EA must also be included in the feasibility report. Specifically the affected habitat types need to be described in the feasibility report.

Required Action: The District will rectify inconsistencies between the feasibility report and the EA and include the information described in the EA on habitat affected.

MVP Action: The feasibility report and the EA have been revised to eliminate any inconsistencies.

HQUSACE Assessment: Existing Conditions section does not contain sufficient information for the reader to understand the conditions of resources - natural, cultural, social, economic, etc...- in the project area. As mentioned at the AFB, the EA contains more thorough information that should at least be summarized in this section of the FR, with a reference to the EA if desired. Both the EA and the FR should be stand alone documents, each with specific if not overlapping requirements, that would allow any reader to understand the proposed plan and planning process, and associated impacts to the natural and human environment.

MVP Response/Action: The Existing conditions have been modified to read, “The city of Roseau is located in rural northern Minnesota. The city continues to go against national trends and is a thriving small town growing 15 percent between 1990 and 2000. This growth is supported by the city’s heavy reliance on manufacturing and agriculture in the region. The impacts of agriculture are visible in the Roseau areas as land use in the region has changed from 52 percent wetlands and 31 percent forest to its present condition of 6 percent forest, 43 percent wetland, and 40 percent cultivated land.

The project area is located on and near the Roseau River, a tributary of the Red River of the North. Prior to settlement, wetlands and forests were the dominant vegetation types in the Roseau River watershed. As agriculture and the associated wetland drainage developed in the area, wetlands and forested areas decreased. The remaining areas of permanent wetlands are concentrated primarily in the northern portions of the county. Many agricultural fields provide temporary flooded wetland habitat during high runoff events, primarily occurring in the spring.

The project area has a diverse fauna, which is in part a result of the presence of nearby State wildlife management areas and State forests. The Roseau River supports both game and nongame fish species, but diversity, abundance, and geographic occurrence are largely dependent on existing barriers, water quality issues and winterkill caused by low flows. Three federally listed threatened species are in the area: bald eagle, Canada lynx, and gray wolf.

The area immediately outside of Roseau consists mainly of farmed lands, with the occasional small pockets of woodlands and wetlands providing minimal habitat value. The land use in the region makes the diverse population of wildlife surprising. This diversity is primarily the result of the presence of publicly-owned natural resource areas scattered along the fringes of the watershed.

This portion of Minnesota contains numerous cultural resources indicating continual human occupation for approximately 12,000 years. Cultural resource sites within the region exist on a variety of landforms, including uplands, terraces, and glacial beach ridges. Precontact cultural resources include lithic and artifact scatters, burial mounds, and cemeteries. Historic cultural resources include Euro-American structural ruins, standing structures and roads. The general project area has been surveyed during several previous flood control studies of the Roseau River. Although no sites were identified in

the area proposed for this project, both pre- and post-contact sites were located in adjacent areas.

The City of Roseau has a number of small parks and recreational facilities that are aimed toward team sports. However, the area is lacking passive and family-orientated recreational resources such as walking and biking trails. The use of snowmobiles and all-terrain vehicles is popular in the Roseau area, although there is only a loose network of state funded snowmobile trails with no all-terrain vehicle trails. During the summer anglers frequent the Roseau River and the dam in town for its game fish species. Flooding has been a regular occurrence in Roseau. Over the past 10 years, the city of Roseau has fought eight major floods, most recently in 2006. Enhancing the problem is that the Roseau area is very flat, and once waters exceed the banks of the Roseau River flooding can span out for miles. In the river's immediate path is the city of Roseau, which can quickly be inundated because of the flashiness of the river. The river is prone to flooding during the spring, when snow melts, and in the summer following rainfall events. The city currently relies on a series of temporary emergency levees and heroic responses, which, in the past, have been too slow due to the flashiness of the river."

HOUSACE Final Assessment: Resolved

26. Impacted Acres. Page 15 of the EA indicates the area of land needed for project implementation by project feature, which totals 1951 acres. The difference between this number and the 1,866.7 acres of land acquisition indicated in the DFR should be explained. According to the EA, 11.75 acres of forested areas will be directly impacted by the project and 4.71 acres of wetlands, including 3.15 acres of forested wetlands, will also be impacted. It appears that the remaining lands required for the project (1935 acres, if using acreages in EA) are farmed or otherwise in disturbed conditions. Is this assessment correct? The DFR only mentions that impacts on natural resources are minor (pages 26 and 52). The DFR should clearly indicate project impacts associated with different project features and the resource type impacted.

District Response: Concur. The discrepancy in the totals has been corrected. The acreage not specifically identified within the project area as wetland or woodland is farmed or otherwise disturbed. The DFR will be revised as needed. Resource types impacted are limited to woodland and wetland. Adverse effects to the river would be localized to junction of the diversion channel, minor and/or temporary.

Discussion: The response resolves the concern.

Required Action: The District will revise the report to clarify, and be consistent in discussing, the natural resources impacted by the proposed project.

MVP Action: The feasibility report and EA have been modified to indicate that the area not identified as wetland or woodland is farmed or otherwise disturbed. Discrepancies between the EA and feasibility report have been corrected.

HOUSACE Assessment: Resolved.

27. Diversion Channel Alignment. Page 16 of the EA states that redesign of the diversion channel alignment to avoid a large forested wetland north of Highway 11 will be completed during preparation of plans and specifications. This is not mentioned in the DFR. Are the impacts listed (11.75 acres of woodlands and 4.71 acres of wetlands) based upon the current channel alignment or a new configuration that will avoid a forested wetland? Discrepancies between the EA and DFR should be rectified.

District Response: The FR will indicate that a new alignment of the diversion channel is being used to avoid an area of forested wetlands. The impacts listed in the EA are that of the new alignment. This discrepancy will be rectified.

Discussion: The EA should not reference a “new alignment” as this leads the reader to believe that the information presented will be changing. The District response resolves the concern.

Required Action: The District will revise the EA and DFR to indicate that the current alignment of the diversion channel avoids impact to a forested wetland area.

MVP Action: The EA and feasibility reports have been revised and updated maps have been included to show the change in the channel alignment to avoid a forested wetland area.

HOUSACE Assessment: Resolved.

28. Mitigation for Natural Resources Impacts. Mitigation for impacts to natural resources is discussed in the EA (pages 15 and 16), but not in the FR.

a. Wetlands Mitigation: Page 14 of EA states that “minor intrusion into wetlands would be offset by the benefit to drained wetland areas resulting from blocking of ditches and drains by levee construction.” However, Page 16 of EA states that wetlands directly impacted by the project would be replaced in-kind at a rate of 2:1 by excavating shallow water depressions and planting appropriate vegetative species. No specific acreage is mentioned. Page 16 also states that forested wetlands would be replaced by tree plantings of appropriate species within storage areas. Table 1b indicates 4.71 acres of total wetland impacts and it appears that 3.15 acres are forested and 1.56 are emergent. This information should be included in the DFR.

District Response: There are relatively few wetlands in the project area remaining after extensive cultivation and those are surrounded by farm fields or are the result of drainage of other wetlands. The building of levees would cut off some existing ditches and break tile lines. Any minor wetland impacts would be more than offset with the establishment of the diversion area and the resultant wetlands that would become re-established with the blockage of existing drainage ditches. Because machinery would be available during construction, there would be an opportunity to create scrapes that would specifically

replace the identified acreages of shallow wetlands that would be affected by levee construction resulting in no net loss. The acquisition and construction of the storage areas would provide 1,100 acres of formerly tiled and ditched farmland that would be available for enhancement through partnerships with natural resource agencies and organizations. Any goals for wetland establishment within the required project lands are in keeping with COE and State regulatory requirements for wetland mitigation.

The habitat quality of riparian woodlands is low because of the limited width of the corridor. Other tree stands are landscaping plantings associated with the city park or are remnants of shelter belts. Approximately 50 acres of trees would be planted for recreational purposes, not for mitigation. The flexibility of the planting plan would allow for some of the trees to be selected for, and planted in, wet parts of the storage areas which would offset removal of 3.15 acres of forested wetlands.

Discussion: See e. below.

Required Action: See e. below.

b. Wooded Areas Mitigation: Page 14 of the EA states that 11.75 acres of wooded areas will be impacted by the project. It further states that loss of wooded areas will be offset at 2:1 or greater, by tree plantings, but does not mention specific acreage. On page C-E-11 of Appendix C, it states that 50 acres of wooded areas will be created for mitigation. However, the DFR indicated only that planting of 50 acres of wooded areas would occur as a component of the NED plan and did not mention mitigation.

District Response: There are 50 acres of tree plantings for recreation. There is no separable mitigation required for wooded areas. Forested wetland impacts would be offset by selecting suitable planting sites for the planned landscaping features (tree plantings) associated with the recreation features.

Since tree planting would not be restricted in the 1,100 acres of storage areas and since they would not be subject to frequent flooding, partnerships would be sought with natural resource agencies to develop enhancement opportunities for trees in the storage areas.

Appendix C, the FR, and the EA will be modified to reflect this. Any inconsistencies in the document will be rectified to reflect the 50 acres as tree plantings associated with recreation.

Discussion: See e. below.

Required Action: See e. below.

c. Appendix C of ER 1105-2-100 discusses mitigation justification and evaluation. The district needs to determine the need for mitigation by assessing ecological resources gains and losses attributed to alternative plans. Unavoidable impacts to significant resources must be compensated to the extent justified (Section C-3d of ER).

The significance of ecological resources and the significance of impacts to these resources have not been provided by the district in the AFB documentation, although the documentation does indicate that the project would have minimal adverse impacts on natural resources. If mitigation is proposed, information needs to be provided regarding the justification of mitigation features. Incremental cost analysis, to an appropriate level of detail, must be used to demonstrate the most cost effective mitigation measures.

District Response: There are no significant effects on any significant resources so there are no separable mitigation requirements associated with this project. Impacts associated with construction/operation of the proposed project would be avoided, minimized and offset through project design. The area is highly disturbed by agricultural and urban land uses. Natural resources remaining in the project area are limited in size, lack connectivity, or are the result of human activity (e.g., ditch construction or landscaping). Aside from small footprint construction at the diversion channel there would be no disturbance of riparian habitat.

Discussion: See e. below.

Required Action: See e. below.

d. The report needs to clarify whether or not impacted wetlands will be mitigated for (i.e. by excavation and plantings). A habitat-based evaluation still needs to be done on the wetland resources in the project area. Similarly, the report should clarify if the 50 acres of woodland plantings are mitigation for the 11.75 acres of woodland impacts. A habitat-based evaluation has not been conducted on the impacted woodlands either. The FR also indicates that an additional five acres of woodland plantings would be done to “minimize visual impacts” or aesthetics. The DFR does not indicate what the visual impacts are or why an additional five acres of woodland plantings (for a total of 55 acres) would be needed to offset visual impacts. Mitigation for impacts to wetlands and woodlands must be developed in accordance with ER 1105-2-100.

District Response: Tree plantings on 50 acres is for recreational purposes, this includes making the site visually pleasing, and creating buffers between the various recreational activities being proposed for the project. They are not for the purpose of mitigation. The planting would, as an additional benefit, offset the removal of 11.75 acres of trees during construction. The FR will clarify the plantings for recreation and how they are used to offset any affects the project has on woodlands.

The potential need to conduct a HEP analysis for the proposed project was discussed with the USFWS during the scoping process. Due to limited scope and extent of the proposed features at that time, it was felt that conducting a detailed HEP analysis would not be warranted and was not included in the SOW for Coordination Act funding – USFWS concurred with this approach. Conditions did not appreciably change over the course of the study to alter this decision. Additional information will be added to the EA to clarify this approach.

Discussion: See e. below.

Required Action: See e. below.

e. Additionally, the documentation should indicate what the difference is between turf and prairie plantings (same cost), and whether any of the prairie plantings (1,060 acres) are for mitigation purposes (particularly wetland mitigation).

District Response: The prairie plantings are designed to be native species that will be used for groundcover in areas which mowing is not part of the operations and maintenance (O&M) of the project. The species used will be a combination of native species that perform favorably to the hydrology of the site. These plantings will offset any affects that the project has on wetlands. Turf plantings are plantings that are designed to be mowed as part of the O&M agreement; these areas would not have any habitat value and are for groundcover purposes.

Discussion: RE: all comments regarding Mitigation for Natural Resources. The district's responses partially resolve the concerns. The report is confusing in that in many places it states that no mitigation is needed for impacts to natural resources and then in other places (including the EA) it indicates that mitigation will be done or that plantings will offset impacts. The term offset indicates mitigation. The district verbally indicated that compensatory mitigation is not necessary and is not being done; however, wetland habitats will be created incidental to the project. The feasibility report should clearly say this. It is also important to clearly explain why a habitat-based evaluation was not completed, how the district determined that wetland impacts were insignificant, and also explain what recreational and aesthetic plantings are.

Required Action: The district will revise the DFR and EA to clearly indicate the quantity and quality of natural resources (habitat types) in the project area and the extent to which they will be impacted. The revised documents will also be consistent in indicating that mitigation is not needed to offset minimal impacts and will explain how this was determined. Lastly, recreational and aesthetic plantings will be discussed and the cost associated with this work justified, understanding that the Federal cost for these plantings will be significantly less than originally proposed since 1,100 acres will be now be part of LPP and not Federal cost shared. Costs associated with aesthetic plantings will comply with PGL No. 29 and those associated with recreation will comply with PGL No. 36. Additional plantings would be 100% non-Federal cost.

MVP Action: The habitat areas in the project area have been quantified (i.e., 721 acres woodland, 136 acres riparian, and 32.83 acres wetlands) and presented in Table 5, page 35 of the feasibility report. The project area for this is 1 mile upstream of the inlet and 1 mile downstream of the outlet and 1 mile to the east and west of the diversion. It has been indicated that the impacted woodlands and wetlands offer limited habitat value as they are small and disconnected by roads and agricultural lands. The affects to the riparian

habitat will be minimal and the area should quickly repopulate, and the presence of rock would increase habitat diversity.

Costs associated with the native plantings and tree plantings have been modified for the NED plan. The LPP plan will contain the same planting features. These costs are associated with the recreation plan as they are being used along the trails and at the trailhead.

HOUSACE Assessment: Resolved.

29. Environmental Justice. On Page 23 of the EA, Table 2, Status of Project Compliance with Applicable Laws and Statutes should include Environmental Justice EO 12898.

District Response: The EA has been modified to include Environmental Justice EO 12898.

Discussion: None. The district response satisfies the concern.

Required Action: None.

HOUSACE Assessment: Resolved.

30. Recreational Opportunities. Page 7 of EA states that Roseau offers a wide variety of parks and recreational facilities for all ages. In other parts of the documentation, such as page 20 of FR, it states that there are very few recreational opportunities present in the area. These statements should be reconciled throughout the documentation.

District Response: Roseau does have a wide variety of small parks located within the city; it also has several indoor areas catering primarily to team sports. However, it is lacking recreational trails, which are being presented in the recommended plan. The documentation will be clear to reference the lack of recreational trails and the presence of specific recreational facilities.

Discussion: None. The District response satisfies the concern.

Required Action: The District will revise the feasibility report to clearly reference the lack of recreation trails and the presence of specific recreational facilities.

MVP Action: The feasibility report and EA have been updated to reflect the lack of recreation trails and the presence of specific recreational facilities.

HOUSACE Assessment: Resolved.

31. 404(b)(1) Guidelines Evaluation and Findings. The 404(b) (1) Guidelines (40 CFR 230) establish restrictions on discharges into waters of the U.S. Under the

Guidelines (Section 230.10) no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse impacts. The District's finding of compliance with the Guidelines restrictions needs to state why the recommended alternative would result in the least amount of significant impacts (ER 1105-2-100, page C-48). In order to make this finding the district must evaluate other practicable alternatives using the criteria of the Guidelines and find that they are not less environmentally damaging. The DFR and EA may be referenced for details, but the Guidelines analysis must include at least a summary of the practicable alternatives and the District's findings that they are not less environmentally damaging than the recommended plan.

District Response: The 404(b) has been modified as suggested.

Discussion: None. The District response satisfies the concern.

Required Action: None.

HOUSACE Assessment: Resolved.

32. Interagency and Public Coordination. More detail should be provided on the statement (in a number of sections in the DFR and EA) that some landowners are uncomfortable with the project adjacent to their lands.

District Response: Concur. The following information will be incorporated into the FR and EA. The majority of the project would be constructed outside of the city limits in areas not as prone to flooding as the city. Thus, some of the affected landowners will only receive minimal benefits from the proposed project. Although frequent communications have indicated that no homes would be affected, many landowners have concern about the uncertainty regarding their property and their lives and are waiting for the final feasibility report and public meetings to provide clarification.

Discussion: None. The District response satisfies the concern.

Required Action: None.

MVP Action: The paragraph was incorporated into the EA, page 14, and where necessary in the Feasibility Report.

HOUSACE Assessment: Resolved.

C. REVIEW COMMENTS ON THE JUNE 2006 DRAFT REPORT AND EA.

1. AFB Comments Cost Estimate. At the end of the 18 May 2006 Memo containing St. Paul District responses and actions to the AFB comments, a TRACES report with cost estimates was included. This TRACES report does not correspond to the cost estimates

and project plans in the RDFR and EA, which seem to be more accurate and up to date. Explain these differences.

MVP Response/Action: The discrepancies are for a couple of reasons. The TRACES report was a previous version of the cost estimate and some changes to the cost estimate were done outside of the document, such as moving line items around and adjusting some contingencies. The TRACES report is not as accurate or up-to-date as the cost estimate in the RDFR and EA.

HOUSACE Assessment: Resolved.

2. Fee vs Easement. Fee or temporary work area easements are the identified estates for the project. There are several utility/facility relocations where it would appear that an easement would be the appropriate estate. Why is fee being recommended? Provide a justification for using fee instead of an easement.

MVP Response/Action: Fee is being recommended as the appropriate estate throughout the entire NED project area since recreational features are included in the recommended plan. The areas within the LPP will also be purchased in fee per request of the local sponsor and at their cost. All required relocations are on project lands and since these lands will be acquired in fee for the project, the utility companies will be provided an easement on project lands for access to the utilities. Page 64 in the feasibility report has been updated to reflect the information above.

HOUSACE Assessment: Resolved.

3. Bridge Justification. An additional bridge was added in response to public concern (page 64). Is this required because of a modification to an existing road? Public concern is not sufficient justification to add a bridge. Provide justification for the addition of the bridge.

MVP Response/Action: The bridge is along a primary route and provides access for approximately 25 properties. Deletion of this bridge would require significant detours. As a result, the bridge was determined to be necessary to maintain access and was the least cost alternative. Both the project sponsor and the public concurred with the need for the continued access provided by this bridge. Changes were made on page 65 of the feasibility report.

HOUSACE Assessment: Resolved.

4. Relocations. The utility/facility relocations section in the Real Estate Plan (REP) only mentions utilities and the railroad bridge. Are there attorney's opinions of compensability for the other two bridges?

MVP Response/Action: There is a preliminary attorney's opinion of compensability, however the highway bridges were not included. The final attorney's opinion of compensability will include the two bridges. This will be completed during the design phase. At this time, there is no reason to assume that the bridges will not be the responsibility of the local sponsor and the sponsor understands this responsibility.

HOUSACE Assessment: Resolved.

5. Cost Estimate. Real Estate Plan, Appendix F, Paragraph 10. Reference MVP response of 5 June 06, to Comment 29 which says the Non-Federal sponsor (NFS) administrative cost has been revisited and \$82,200 seems appropriate.

HQ has reviewed the estimate of NFS acquisition costs in the revised report and has concerns that the cost shown of \$114,000, excluding contingencies, to acquire 30 ownerships appears low. MVD REP CoP is recommending approval of the Roseau report due to the district's knowledge of acquisition practices and costs in the area. The district should furnish further information that contractors do a full turnkey acquisition at \$3800 per tract as shown in the report to support the position that the NFS administrative cost is not low.

MVP Response/Action: It is recognized that \$3800 per tract may appear low for turnkey acquisition; however, it is important to note that the 30 parcels identified in the report are not a direct correlation to the number of individual ownerships. There are approximately 15 to 20 separate ownerships for the lands required for the project. By identifying the individual owners, the estimate used for NFS real estate administrative costs on a per tract average become realistic. It is also important to know that the real estate needed for the project will not involve any residential acquisition. All lands are currently zoned agricultural and will not require extensive appraisal assignments. Finally, it should be noted that the NFS will be completing the land acquisitions without the support of an acquisition and relocation contractor. All acquisitions will be completed directly by qualified employees of the NFS.

HOUSACE Assessment: Resolved.

6. Relocation of Utilities and Facilities. Real Estate Plan, Appendix F, Paragraph 16. This paragraph indicates that the Preliminary Attorneys Opinion has determined that all relocations, with the exception of EFG Gas and CenturyTel, will be born by the NFS. The Attorney's Preliminary Opinion of Compensability seems to contain some discrepancies.

- a. Paragraph V.A. Indicates it is unknown at this time who would bear the cost of the relocation of the EFG gas lines.
- b. Paragraph V.B. indicates the extent of the easements acquired by CenturyTel is unknown and if the project is considered a capital project, CenturyTel will be responsible for the relocation of their utilities.
- c. Paragraph V.D. indicates Sjoberg Cable TV's agreements with local government units require Sjoberg to bear the cost of any required relocation of cable television lines.

HQ understands the Attorney's Opinion was prepared in June 2005 and is a preliminary finding. The Preliminary Opinion and the REP should be reconciled and contain the same findings and information.

MVP Response/Action: Inconsistencies between the REP and the preliminary Attorney's Opinion have been corrected on page 6 of the Real Estate Appendix. The final Opinion will be completed during Plans and Specifications and the REP will be updated at that time accordingly.

HQUSACE Assessment: Resolved.

D. REVIEW COMMENTS ON THE AUGUST 2006 FINAL REPORT AND EA.

1. The review of the final report generated no additional comments.

Thomas Hughes

Policy Compliance Review Manager
